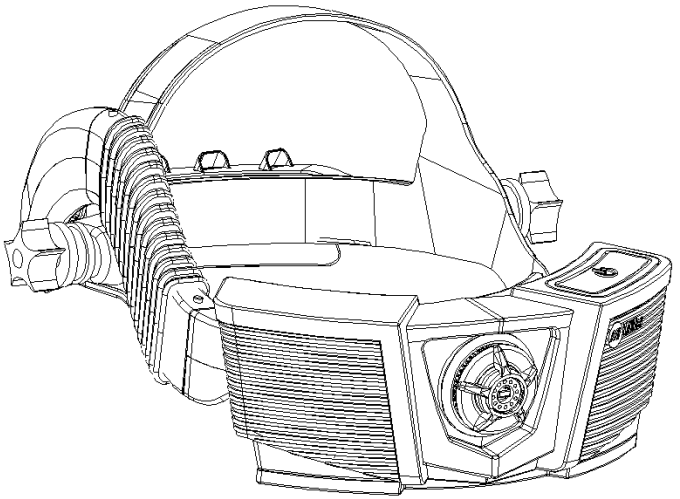
OM-235 369A
2009–11

Auto-Darkening Helmets

Model: CoolBand ™ Integrated Headgear Cooling System



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SECTION 1 – HELMET COOLER SAFETY PRECAUTIONS – READ BEFORE USING

Protect yourself and others from injury — read and follow these precautions.

1-1. Symbol Usage

DANGER! – Indicates a hazardous situation which, if not avoided, will result in death or serious injury. The possible hazards are shown in the adjoining symbols or explained in the text.

Indicates a hazardous situation which, if not avoided, could result in death or serious injury. The possible hazards are shown in the adjoining symbols or explained in the text.

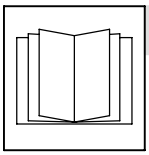
NOTICE *– Indicates statements not related to personal injury.*

☞ *Indicates special instructions.*

This group of symbols means Warning! Watch Out! ELECTRIC SHOCK, MOVING PARTS, and HOT PARTS hazards. Consult symbols and related instructions below for necessary actions to avoid the hazards.

1-2. Hazards

Only qualified persons should install, operate, maintain, and repair this unit.



READ INSTRUCTIONS.

- Read and follow all labels and the Owner's Manual carefully before installing, operating, or servicing unit. Read the safety information at the beginning of the manual and in each section.
- Use only genuine replacement parts from the manufacturer.
- Perform maintenance and service according to the Owner's Manuals, industry standards, and national, state, and local codes.

HELMET COOLER MISUSE can be hazardous.

Welding produces fumes and gases. Breathing these fumes and gases can be hazardous to your health.

- Read and follow these instructions and the safety labels carefully. This product is intended for use as a cooling device only. It is not a respiratory protective device and does not protect the user from airborne contaminants. Have an industrial hygienist test the air in your facility to determine if respiratory protection is required to provide adequate protection from contaminants in your environment. With cooling system-equipped helmet on your head and cooling system operating, also test the air inside the helmet to determine if respiratory protection is required. If you have questions about the type of respiratory protection equipment required, consult your safety director and an Industrial Hygienist.
- Do not use this product where there is danger of fire or explosion.
- Do not use this product in windy conditions or negative pressure inside the hood may draw in contaminants from the outside air.
- Do not use this product without a properly installed spark guard unless the unit is designed and intended to be used without one. Without the spark guard (on applicable products), welding sparks may ignite the filter or damage the filter.
- This product does not supply oxygen. Do not use this product where oxygen levels are 19.5% or lower, where contaminant levels are unknown or are immediately dangerous to life or health (IDLH), or where the contaminant levels exceed the equipment specifications.
- Do not enter a work area until you are sure the equipment is correctly assembled, working properly, and properly worn.

- Before each use, inspect the equipment for damage and verify it operates properly.
- Dangerous contaminants may not smell or be visible. Leave the area immediately if you notice the following:
  . . . Breathing becomes difficult.
  . . . You experience dizziness, impaired vision, or eye, nose, or mouth irritation.
  . . . The equipment is damaged.
- Do not repair, modify, or disassemble this product or use with parts or accessories not supplied by the manufacturer.
- Do not operate unit without properly installed filter(s). Replace damaged or clogged filters. Do not wash or reuse filters. Do not clean filters by tapping or with compressed air or filter elements may be damaged.
- Do not restrict or alter helmet cooler air flow. Do not block air inlet or outlet. Be sure safety glasses, hair, weld cap, and other objects do not block air flow.
- This product contains electrical parts which have not been evaluated as an ignition source in flammable or explosive atmospheres by MSHA/NIOSH.

SECTION 2 – BATTERY SAFETY PRECAUTIONS – READ BEFORE USING

Protect yourself and others from injury — read and follow these precautions.

2-1. Symbol Usage

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DANGER! – Indicates a hazardous situation which, if not avoided, will result in death or serious injury. The possible hazards are shown in the adjoining symbols or explained in the text.

Indicates a hazardous situation which, if not avoided, could result in death or serious injury. The possible hazards are shown in the adjoining symbols or explained in the text.

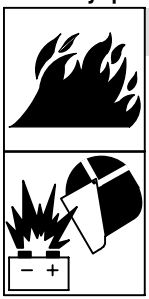
NOTICE *– Indicates statements not related to personal injury.*

☞ *Indicates special instructions.*

This group of symbols means Warning! Watch Out! ELECTRIC SHOCK, MOVING PARTS, and HOT PARTS hazards. Consult symbols and related instructions below for necessary actions to avoid the hazards.

2-2. Hazards

Only qualified persons should install, operate, maintain, and repair this unit.

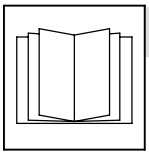


FIRE OR BATTERY EXPLOSION hazard.

- During operation keep everyone, especially children, away.
- Do not install or place charger on, over, or near combustible surfaces.
- Do not charge battery near flammables.
- Examine the battery before first use. Return battery to the manufacturer if battery is damaged, dirty, or emits an unusual odor.
- Use battery only with equipment with which it was supplied. Replace battery only with battery specified in Owner's Manual. Use of another battery may present a risk of fire or explosion.
- Keep battery dry.
- Do not use or store the battery in extremely hot or humid conditions. See the Owner's Manual for specific operating and storage information.
- Keep battery away from fire, out of direct sunlight, and away from other sources of heat.
- Do not use or charge the battery if it has been dropped or damaged.
- Do not open, puncture, repair, disassemble, or modify the battery.
- Charge battery only with supplied charger in an open, well–ventilated location out of direct sunlight and according to supplied instructions.
- Do not overcharge a battery or charge battery longer than specified (if charger is not equipped with automatic shutoff). See the Owner's Manual for specific information on battery charging.
- Do not charge battery by connecting directly to AC receptacle. Do not connect battery charger to automobile auxiliary power receptacle.
- Do not connect (short circuit) battery terminals to each other. Do not allow tools, conductive materials, or other objects to touch both battery terminals at the same time.
- Do not weld on battery or fasten any objects to battery.
- Do not heat battery in a microwave oven or any other heating device.
- Keep battery away from sources of high voltage.
- Do not expose battery to static electricity.
- Do not use or mix battery with damaged or worn out batteries, or other types of batteries.

BATTERY ACID can BURN SKIN and EYES.

- Replace damaged battery.
- Do not touch materials from inside a damaged battery.
- Flush eyes and skin immediately with water.



READ INSTRUCTIONS.

- Read and follow all labels and the Owner's Manual carefully before before using the battery or battery charger. Read the safety information at the beginning of the manual and in each section.
- Dispose of battery according to local, state, and federal requirements. Do not dispose of battery in fire or water.
- Contact the equipment manufacturer if you have any questions about the battery.

SECTION 3 – HEADGEAR COOLING SYSTEM

Read and follow these instructions and the safety labels carefully. This product is intended for use as a cooling device only. It is not a respiratory protective device and does not protect the user from airborne contaminants. Have an industrial hygienist test the air in your facility to determine if respiratory protection is required to provide adequate protection from contaminants in your environment. With cooling system-equipped helmet on your head and cooling system operating, also test the air inside the helmet to determine if respiratory protection is required. If you have questions about the type of respiratory protection equipment required, consult your safety director and an Industrial Hygienist.

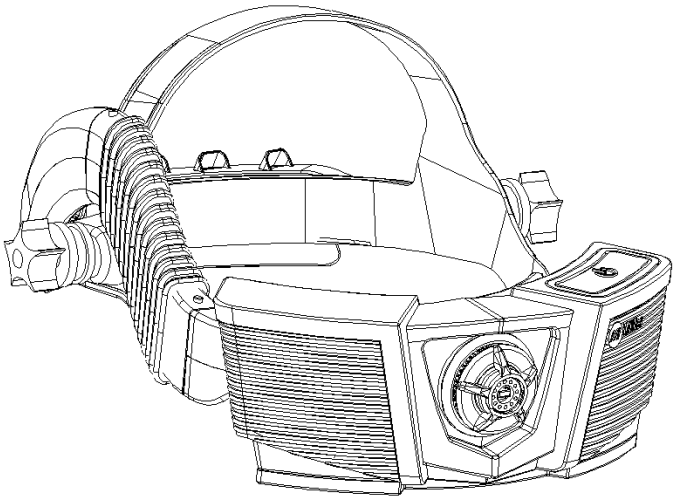
☞ *Use the cooling system only with compatible Miller welding helmets (MP-10 ™, Pro-Hobby ™, Performance ™, Elite ™, Titanium ™ series helmets). See the welding helmet Owner's Manual for information on helmet operation.*

The CoolBand™ headgear cooling system draws in air and blows it to the front of the welding helmet through a flexible tube. The system also generates a positive air pressure to help prevent contaminants from entering the helmet. The system must include and/or be used with the equipment listed below:

- Helmet and head shroud
- Blower assembly with properly-installed filter
- Battery charger with AC power adapter

The helmet cooling system operates at temperatures from 14° to 131° F (–10° to 55° C) The Battery Level red light flashes and blower assembly pulses on and off when battery power is low.

☞ *To better show components and features, the helmet cooling system is shown without welding helmet.*



3-1. Helmet Cooling System Specifications

Application	Fits Most Miller Welding Helmets
Weight	Total Weight With Battery: 17.6 oz. (500 g) Added Weight To Helmet If Using Battery Power: 13.1 oz. (371 g) Added Weight To Helmet If Using AC Power: 10.2 oz. (289 g)
Air Filter ☞ *Filter is required for proper operation of equipment, but does not provide respiratory protection.*	Use Miller Filter Only (Miller Part No. 243 932)
Operating Temperature	14° to 131° F (–10° to 55° C)
Storage Temperature (For Up To Six Months Storage With Battery 50% Charged)	Acceptable: 23° to 95° F (–5° to 35° C) Preferred: 68° to 86° F (20° to 30° C)
Battery Type	Rechargeable Lithium, 1600 mAh, 7.4 V (Rated) 8.4 V (Fully Charged)
Battery Charging Time	About 3.5 hours (Typical); 4.5 hours (max.)
Battery Charging Temperature	32° to 104° F (0° to 40° C)
Battery Life	New Battery: 6 Hours Run Time (Typical); 5.3 hours (Min.) ☞ *Battery retains about 80% of original battery life after 300 charges. Battery may be recharged about 500 times.*
AC Adapter	Output: 12 V, 500 mA Cord Length: 9.8 ft (3 m)
Shroud Service Life	Replace After 50 Washings

3-2. Installing Headgear

1 Distance Adjustment Knob

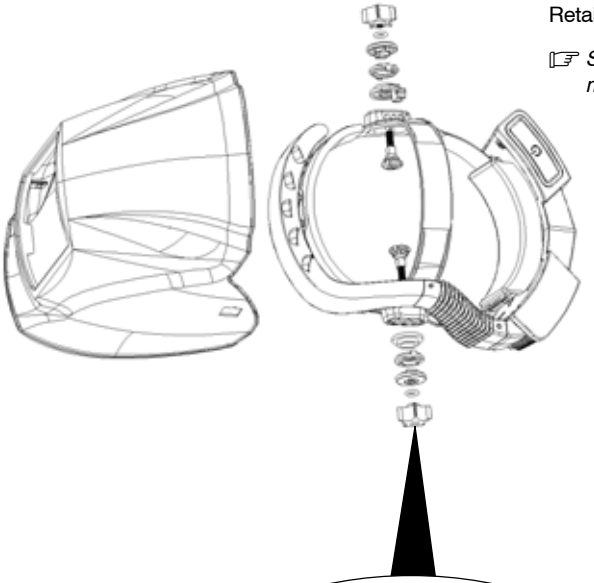
2 O−Ring

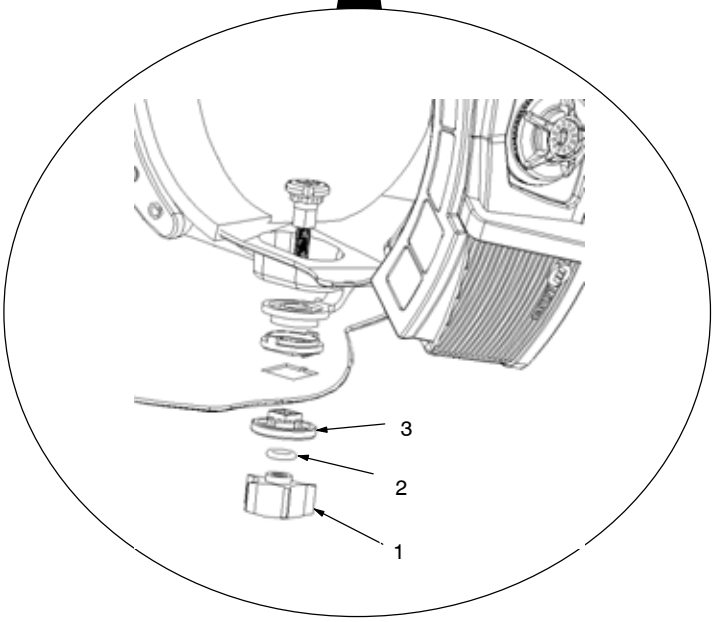
3 Washer

Remove knobs, o−rings, and washers from helmet headgear. Remove headgear. Install helmet cooling system headgear and secure with knobs, o−rings, and washers.

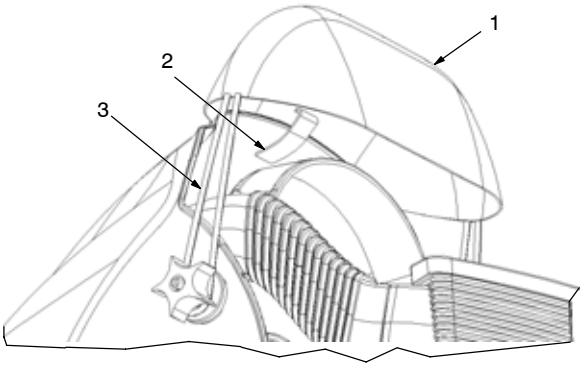
Retain old headgear for future use.

☞ *See Section 4 for helmet adjustment information.*





3-3. Installing Head Shroud



After installing shroud, make sure there are no gaps between shroud and helmet edge.

1 Head Shroud

2 Magnetic Fastener

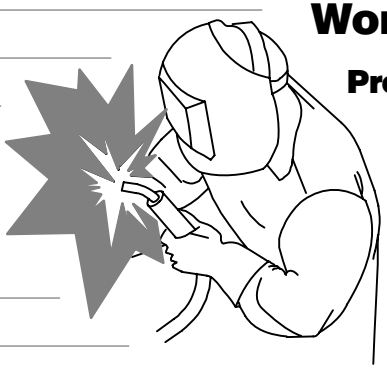
3 Elastic Loops

Position head shroud magnetic fasteners on inside and outside of helmet edge.

Stretch head shroud elastic loops over helmet distance adjustment knobs.

☞ *Remove shroud from helmet when using helmet with the cooling system turned off.*

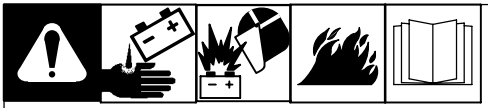
Notes

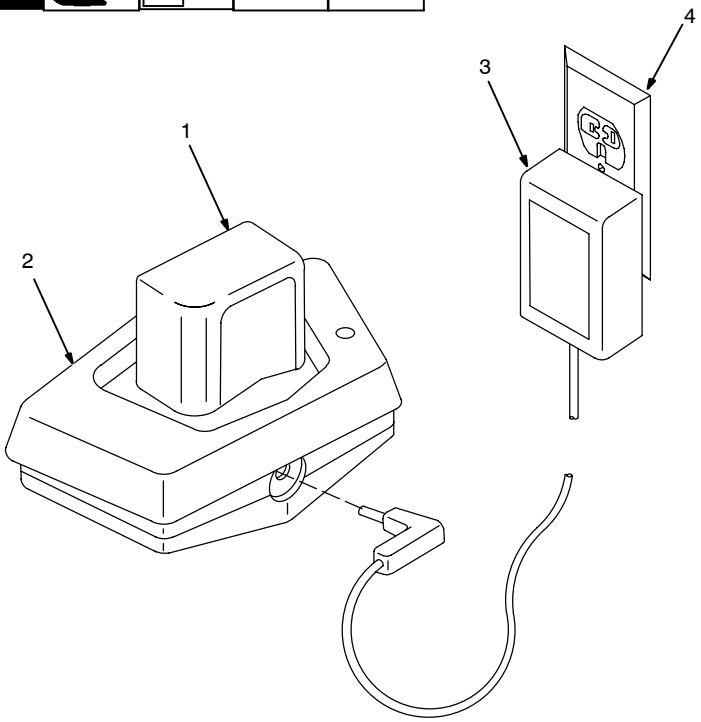


Work like a Pro!

Pros weld and cut safely. Read the safety rules at the beginning of this manual.

3-4. Charging The Battery





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⚠ **Charge battery only with supplied charger in an open, well–ventilated location.**

⚠ **Do not allow battery to get wet. Do not attempt to open the battery case.**

⚠ **Keep battery away from fire or heat.**

☞ *Remove tape from battery terminals before using battery.*

☞ *Charge battery before first use or if battery has not been used for five days.*

☞ *Dispose of battery at a designated collection facility.*

☞ *Battery charging automatically stops when battery is fully charged.*

1 Battery
2 Battery Charger
3 12 Volt AC Power Adapter
4 120 Volt 15 A AC Receptacle

☞ *Place battery charger on flat, level surface or use supplied screw to mount charger on wall.*

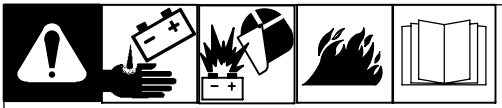
Remove battery from blower assembly (see Section 3-5).

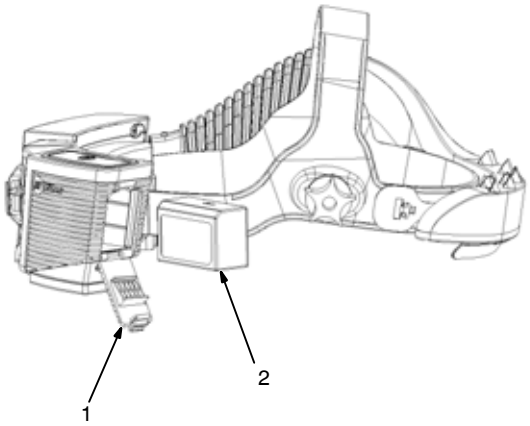
Place battery in charger base. Connect AC power adapter cord to charger base. Connect AC power adapter to 120 volt AC receptacle.

The charger red light goes on when battery is being charged. When fully charged, the charger green light goes on. Charging normally takes between 3.5 hours (typical) and 4.5 hours (max.)

☞ *See Section 3-10 to operate helmet cooling system on AC (utility) power.*

3-5. Installing The Battery





⚠ Do not allow battery to get wet. Do not attempt to open the battery case.

⚠ Keep battery away from fire or heat.

☞ *To better show components and features, the helmet cooling system is shown without welding helmet.*

1 Access Door

2 Battery

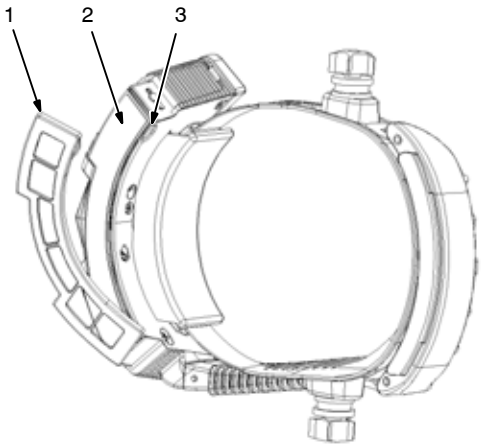
Open battery access door. Slide battery into blower assembly until terminals touch back of battery compartment.

☞ *Remove tape from battery terminals. Install battery with terminals facing helmet cooling system as shown.*

Close door.

☞ *See Section 3-10 to operate helmet cooling system on AC power.*

3-6. Installing The Filter



⚠ Do not use the helmet cooling system without the filter installed.

⚠ Replace damaged or dirty filter. Do not wash filter, clean with compressed air, or reuse dirty filter.

☞ *Filter is required for proper operation of equipment, but does not provide respiratory protection.*

1 Filter Cover

2 Filter

3 Finger Tab

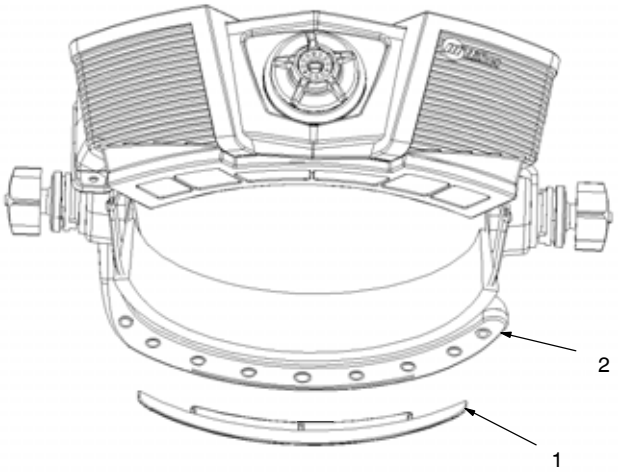
Grip finger tab to pull cover away from blower assembly. Install filter. Reinstall cover so it fits tightly around filter area.

☞ *Filter is shaped to fit only one way in blower assembly. Be sure filter is installed correctly.*

3-7. Removing Air Deflector To Adjust Air Flow

1 Air Deflector
2 Manifold

To adjust air flow in helmet, remove air deflector from manifold. Save air deflector for later use.



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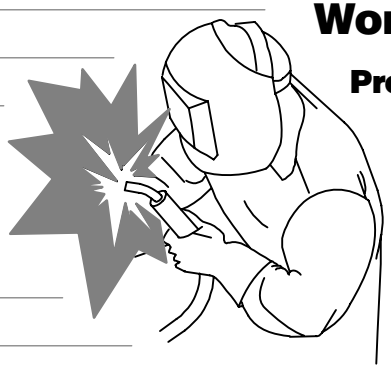

Work like a Pro!

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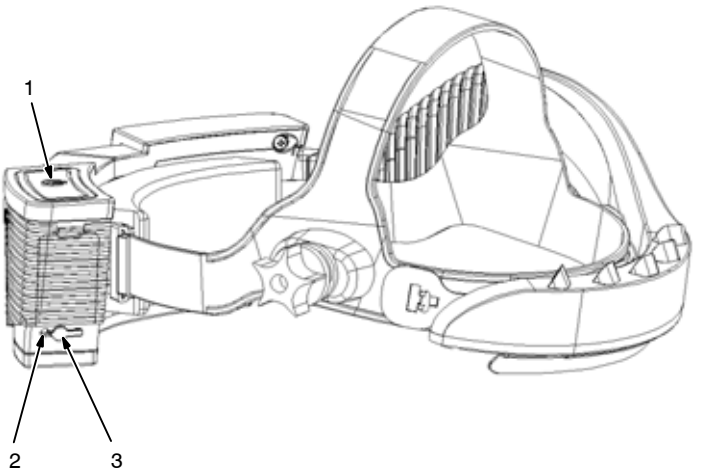
3-8. Operating The Controls



⚠ **Read and follow these instructions and the safety labels carefully. This product is intended for use as a cooling device only. It is not a respiratory protective device and does not protect the user from airborne contaminants. Have an industrial hygienist test the air in your facility to determine if respiratory protection is required to provide adequate protection from contaminants in your environment. With cooling system-equipped helmet on your head and cooling system operating, also test the air inside the helmet to determine if respiratory protection is required. If you have questions about the type of respiratory protection equipment required, consult your safety director and an Industrial Hygienist.**

⚠ **Do not restrict or alter helmet cooling system air flow. Do not block air holes (including upper and lower holes). Be sure safety glasses, hair, weld cap, and other objects do not block air flow.**

1 Power Button

To Start: Press Power button. Blower assembly starts when button is released.

To Stop: Press Power button again.

☞ *Light pressure on Power button turns unit off.*

2 Battery Level Light

The Battery Level green light goes on when blower assembly is running and battery is charged.

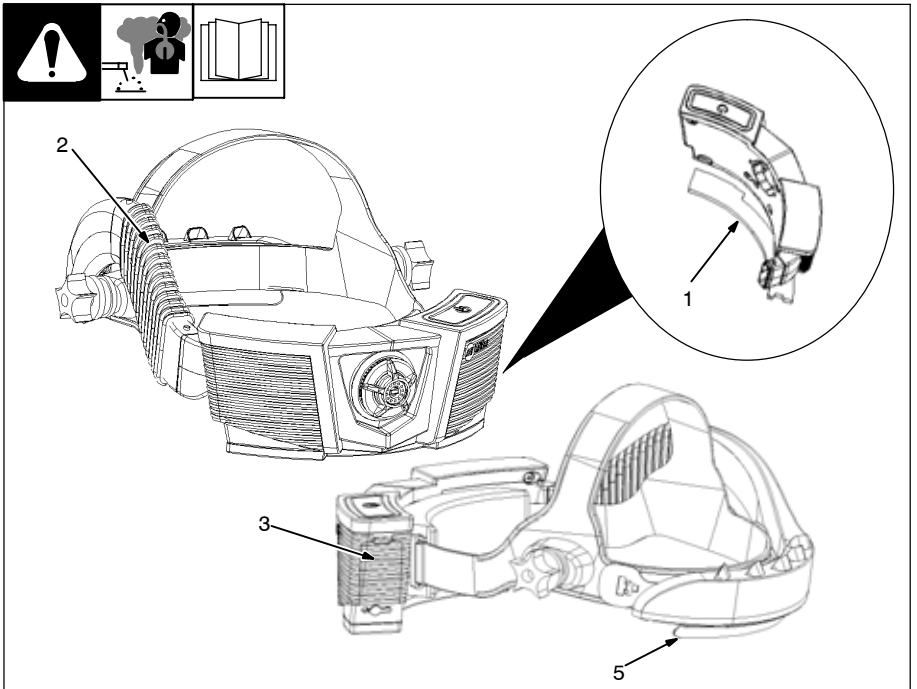
The Battery Level red light flashes and blower assembly pulses on and off when battery power is low.

The blower assembly stops and Battery Level red light stays on when battery is fully discharged. See Section 3-4 for battery charging information.

3 Aux Power Jack

Connect AC power adapter cord to Aux Power jack to operate helmet cooling system on 120 volt AC power (see Section3-10). Reinstall cover when not using Aux Power jack.

3-9. Checking The Helmet Cooling System Before Use



⚠ Read and follow these instructions and the safety labels carefully. This product is intended for use as a cooling device only. It is not a respiratory protective device and does not protect the user from airborne contaminants. Have an industrial hygienist test the air in your facility to determine if respiratory protection is required to provide adequate protection from contaminants in your environment. With cooling system-equipped helmet on your head and cooling system operating, also test the air inside the helmet to determine if respiratory protection is required. If you have questions about the type of respiratory protection equipment required, consult your safety director and an Industrial Hygienist.

⚠ Do not restrict or alter helmet cooling system air flow. Do not block air holes (including upper and lower holes). Be sure safety glasses, hair, weld cap, and other objects do not block air flow.

Before using the helmet cooling system, check the following items:

1 Filter

☞ *Filter is required for proper operation of equipment, but does not provide respiratory protection.*

Verify the filter is undamaged, properly assembled, and securely connected to the blower assembly.

2 Flexible Tube

Be sure the tube is undamaged and properly connected to the manifold and blower assembly.

3 Battery

Verify the battery is fully charged and secured in the battery compartment.

4 Air Flow

Turn on blower assembly and test air flow.

5 Air Deflector

To adjust direction of air flow, remove air deflector (see Section 3-7).

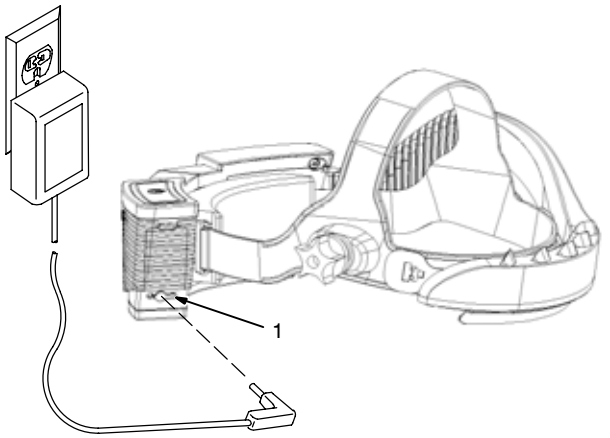
6 Shroud (Not Shown)

Inspect the shroud and replace if damaged. See Troubleshooting (Section 4-4) if air is not being supplied to front of helmet.

Put on helmet and adjust helmet so helmet fits snugly on head. Verify shroud is properly installed on helmet.

☞ *See Section 4 (Miller helmet) or the welding helmet Owner's Manual for helmet adjustment information.*

3-10. Operating Helmet Cooling System On 120 Volt AC Power



1 Auxiliary Power Jack

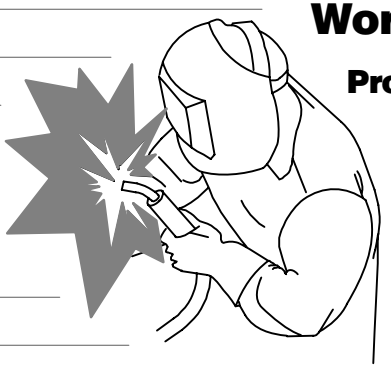
To operate helmet cooling system on AC (utility) power, remove cord from charger base and connect to Aux Power jack on blower assembly. Connect other end of cord to 120 volt 15 A AC receptacle.

☞ *The battery is not being charged when the helmet cooling system is connected to an AC power supply.*

☞ *Battery can be removed from helmet cooling system when using AC power.*

☞ *Obtain an additional AC Power Adapter to charge the battery when the helmet cooling system is operating on AC power (see Section 5 – Parts List).*

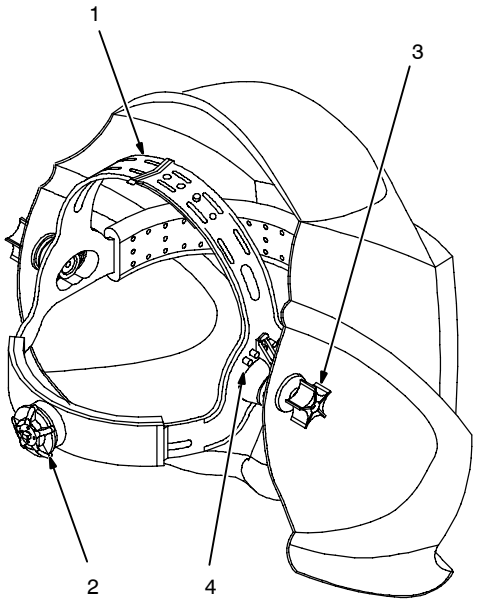
Notes



Work like a Pro!

Pros weld and cut safely. Read the safety rules at the beginning of this manual.

4-1. Adjusting Headgear



☞ *There are four headgear adjustments: headgear top, tightness, angle adjustment, and distance adjustment.*

1 Headgear Top

Adjusts headgear for proper depth on the head to ensure correct balance and stability.

2 Headgear Tightness

To adjust, push in the adjusting knob located on the back of the headgear and turn left or right to desired tightness.

☞ *If adjustment is limited, it may be necessary to remove the comfort cushion.*

3 Distance Adjustment

Adjusts the distance between the face and the lens. To adjust, loosen both outside tension knobs and press inward to free from adjustment slots. Move forward or back to desired position and retighten. (Both sides must be equally positioned for proper vision.)

4 Angle Adjustment

Four pins on the right side of the headband top provide adjustment for the forward tilt of the helmet. To adjust, loosen the right outside tension adjustment knob then lift on the control arm tab and move it to the desired position. Retighten tension adjustment knob.

☞ *When using the back distance adjustment positions, only the back three angle adjustment pins can be used.*

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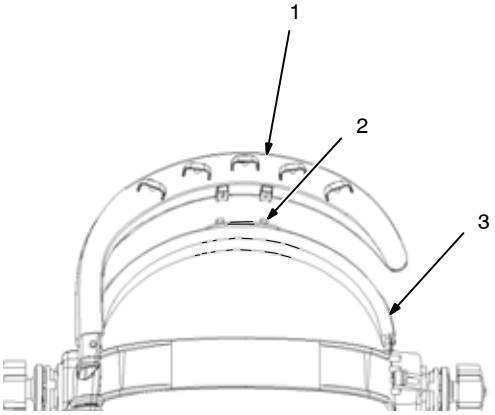
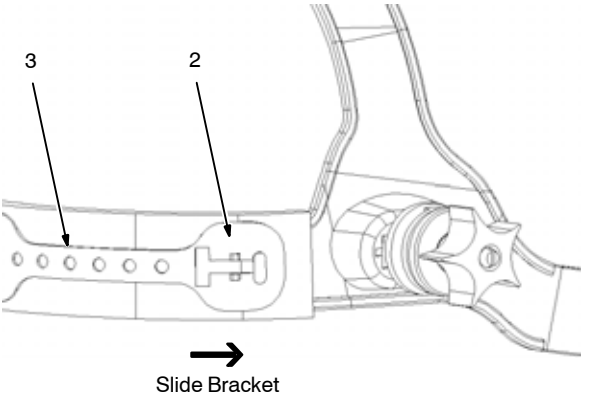
4-2. Replacing Fabric Headband





1 Manifold

2 Manifold Bracket

3 Fabric Headband

Slide manifold up and away from manifold bracket. Push bracket toward fabric headband and slide bracket sideways to align slot with tab on headgear. Remove bracket.

Remove fabric headband and clean or replace. Reinstall fabric headband, manifold bracket, and manifold in reverse order of disassembly.

4-3. Maintenance And Storage

Replace damaged or dirty filter. Do not wash filter, clean with compressed air, or reuse dirty filter.

Never use solvents or abrasive cleaning solutions to clean the helmet cooling system. Keep water and other fluids out of blower assembly.

Replace shroud after 50 washings. Shroud loses its fire retardant properties with repeated washing.

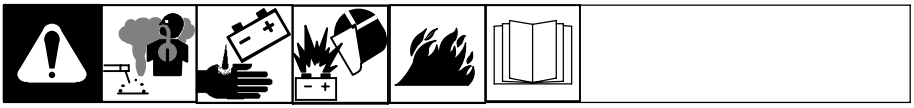
For best performance clean the equipment after each use. Use a soft cloth dampened with a mild soap and water solution to wipe all external surfaces clean. Allow to air dry.

Product usage, workplace contamination levels, and other factors affect the life of the filter. Replace filter if air flow is reduced due to a dirty filter (see Section 3-6).

Inspect flexible tube and replace if damaged or if inside of tube is extremely dirty.

If the helmet cooling system will not be used for an extended period, remove the filter and battery and store in a clean, dry place free of solvent-based vapors them and at a temperature of –4° to 86° F (–20° to 30° C). Charge battery to 50 percent capacity before storage.

4-4. Helmet Cooling System Troubleshooting



Trouble	Remedy
Blower assembly does not supply air to helmet.	Press Power button.
	Dead battery; recharge battery (see Section 3-5).
	Remove tape from battery terminals (new battery only).
	Verify battery contacts are clean and free of obstructions.
	Remove blockage from blower assembly outlet and tube.
Blower assembly runs for short time even though battery is fully charged.	Be sure battery is properly connected to battery charger.
	Replace battery.
	Replace charger.
Battery Level red light is on or flashing.	Charge or replace the battery. The blower assembly will operate for about 15 minutes after the light starts flashing.
Blower assembly is pulsing on and off.	Charge or replace the battery. The blower assembly will operate for about 15 minutes after the light starts flashing.

Battery run time is too short.	Replace battery.
	Check filter and replace if necessary (see Section 3-6). A clogged filter element reduces battery life.
Air supplied to helmet smells and tastes unusual; eyes and throat irritation.	Continue wearing the helmet cooling system and leave the area immediately. Check contamination level of filter, and replace filter if necessary.
	Check flexible tube connection to blower assembly and manifold.
	Have Safety Director and an Industrial Hygienist determine if you are using the proper equipment for the work environment.
Blower assembly supplies insufficient air to helmet.	Check filter and replace if necessary (see Section 3-6).
	Check flexible tube connection to blower assembly and manifold.
	Remove blockage from blower assembly outlet and/or tube.

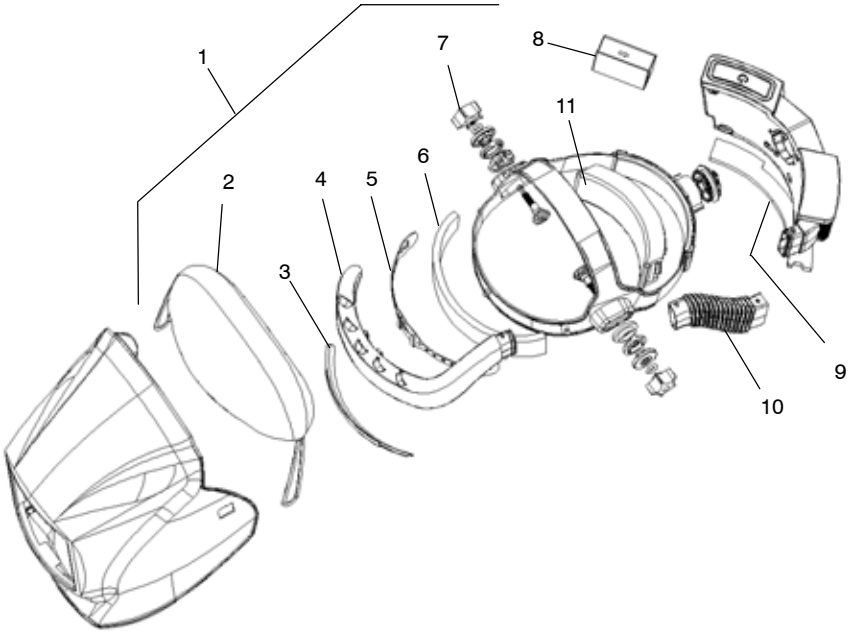


Figure 5-1. CoolBand Helmet Cooling System

Item No.	Part No.	Description	Quantity

Figure 5-1. CoolBand Helmet Cooling System

1	244094	CoolBand Unit (Entire System – Helmet Not Included)	1
2	243931	Shroud, Head	1
3	243930	Deflector, Air	1
4	243923	Manifold	1
5	243924	Bracket, Manifold	1
6	770249	Headband, Fabric	1
7	243926	Headgear Set (Includes Knobs, Springs, Headbands, Mounting Gears, Screws)	1
8	243927	Battery, Rechargeable Lithium Polymer	1
9	243932	Filter (Pack of 10)	1
10	243925	Tubing, Stretch	1
11	216336	Cushion, Comfort	1
.....	243928	Charger, Battery (Not Shown)	1
.....	243929	Adapter, AC Power (Not Shown)	1

SECTION 6 – LIMITED WARRANTY

LIMITED WARRANTY – Subject to the terms and conditions below. Miller Electric Mfg. Co., Appleton, Wisconsin, warrants to its original retail purchaser that the new Miller equipment sold after the effective date of this limited warranty is free of defects in material and workmanship at the time it is shipped by Miller. THIS WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THE WARRANTIES OR MERCHANTABILITY AND FITNESS.

The headgear cooling system is warranted for one year from the date of purchase. *Proof of purchase is required for warranty transactions so it is imperative that a copy of the original invoice or sales receipt be retained.*

For warranty transactions, contact your Miller Distributor.

Effective January 1, 2009

Visit our website at
www.MillerWelds.com

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ORIGINAL INSTRUCTIONS

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